ABSTRACT

An insulating film (3) having an opening (3a) over respective electrode pads (2) serving as a plurality of I /O terminals of a semiconductor chip (1a) is formed on a surface of the semiconductor chip (1a), and a plurality of connecting electrodes (4) is formed on the insulating film (3) so as to be in contact with the respective electrode pads (2) through the respective openings (3a). A thermoplastic resin (5) is formed on the respective connecting electrodes (4), and the respective thermoplastic resins (5) are caused to be attached with or to be contained with a plurality of pieces (preferably not less than ten pieces) of conductive particles (9), thereby making up a semiconductor device (1). When mounting the semiconductor device (1) on a substrate with wirings patterned thereon, placement of the semiconductor device (1) is decided upon such that the respective connecting electrodes (4) are positioned opposite to the predetermined wirings, and the semiconductor device (1) is pressed into contact with the substrate to which an insulating resin is applied before heating the same, thereby causing electrical connection to occur between the connecting electrodes (4) and the wirings by a plurality of conductive particles (9) pressed and sandwiched therebetween.